

Science: The observation, identification, description, experimental investigation, and theoretical explanation of phenomena

- DNR required to use sound science
- Predict biological and social consequences
- Uncertainty always remains
- Risks associated with uncertainty vary



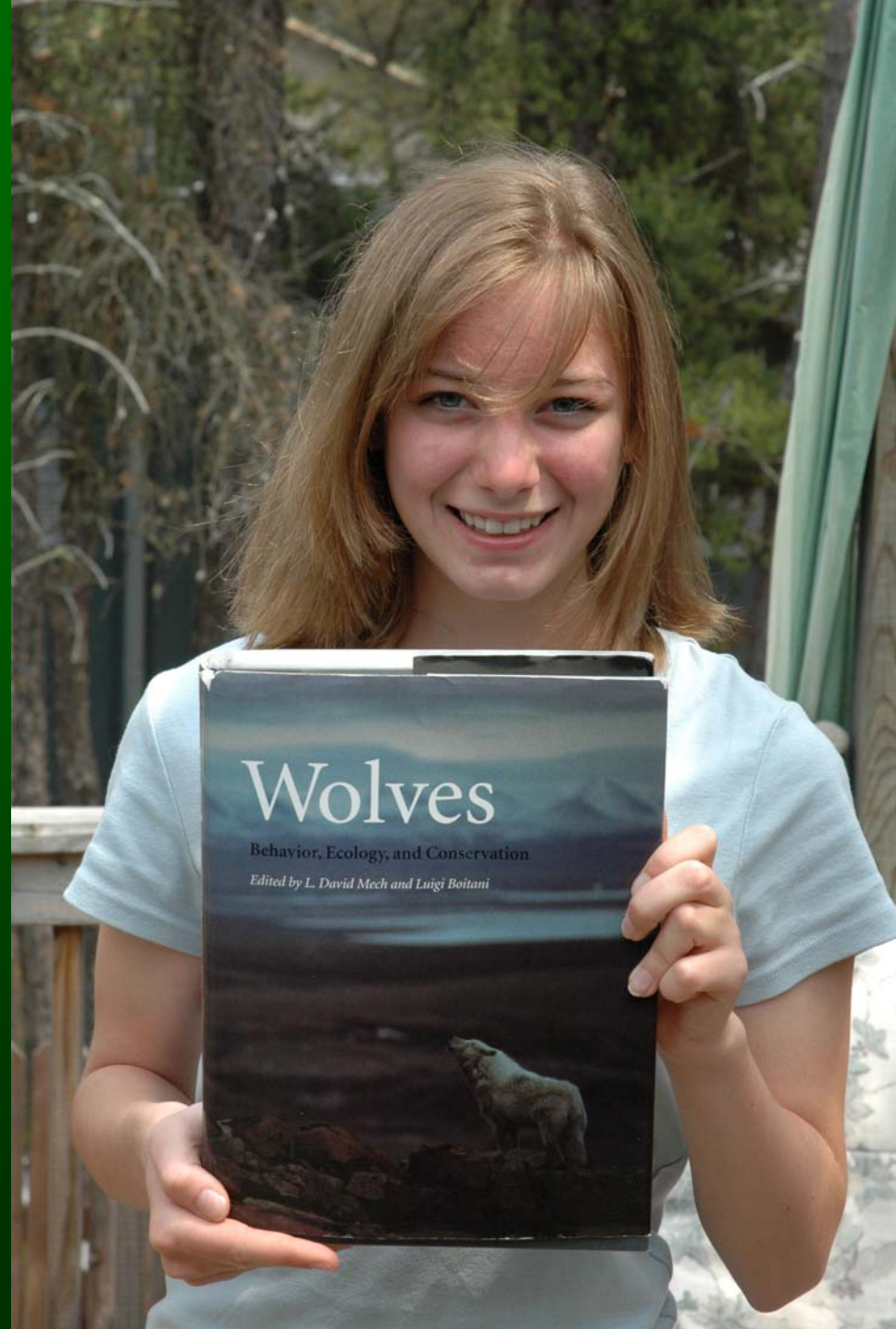
Wolf Research

- >40 books
- 1000s of scientific articles



Scientific Information: Reference Text

- Published in 2003
- Synthesis of wolf research



Scientific Information: White Paper

REVIEW OF CURRENT SOCIAL AND BIOLOGICAL SCIENCE RELEVANT TO WOLF MANAGEMENT IN MICHIGAN

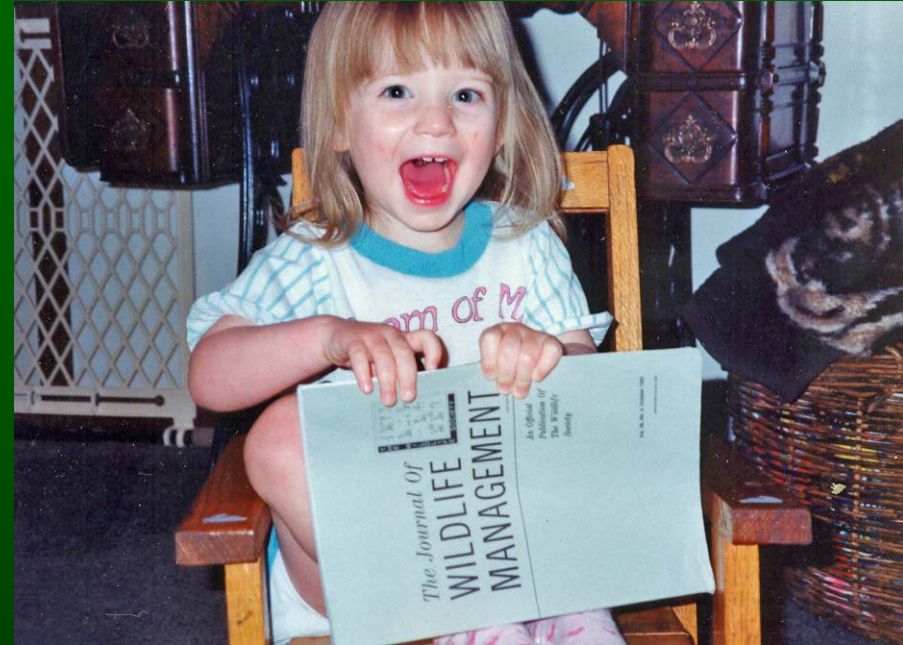


Scientific Information: Presentations

- Specific topics as necessary
- Scientific expertise on the roundtable
- DNR resource staff

Sources of Information

- Scientific literature
- Agency/University reports
- Unpublished agency data
- Wolf experts
- Social Science—MSU public attitude survey



White Paper Organization

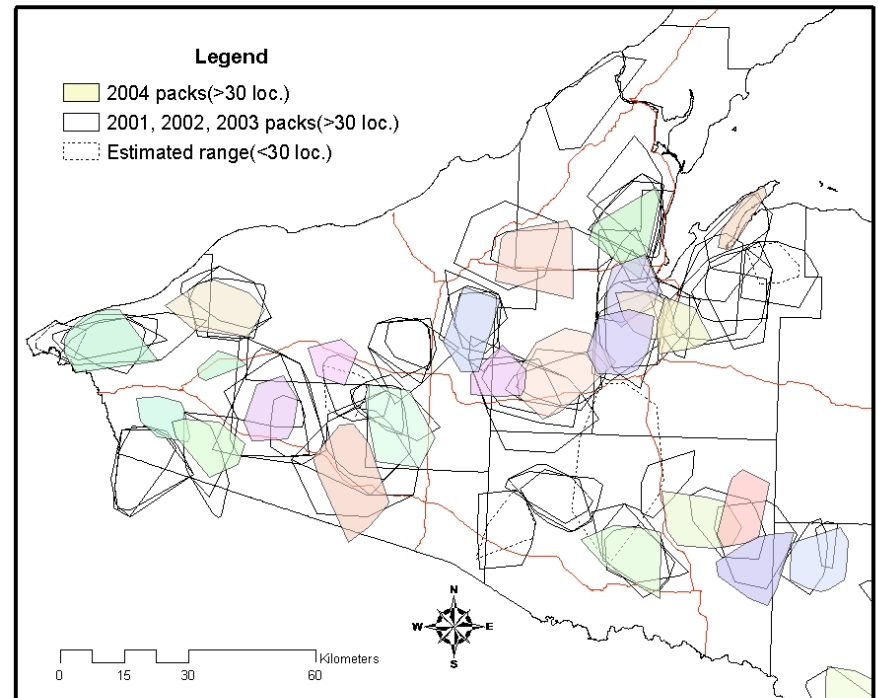
- Executive Summary
- Introduction
- Biology and Status of Wolves
- Social Carrying Capacity
- Remaining Chapters Arranged by Issue
- Literature Cited
- Appendices

Chapter 1: Wolf Biology and Status



- Mortality factors
- Survival rates
- Biological carrying capacity

- Average pack size
- Average litter size
- Average territory size



Chapter 2: Social Carrying Capacity

- Similar notion to biological carrying capacity

Social Carrying Capacity is defined by that level of wildlife or wildlife-human interaction which produces a manageable level of issue activity

Chapter 3: Managing Population Size

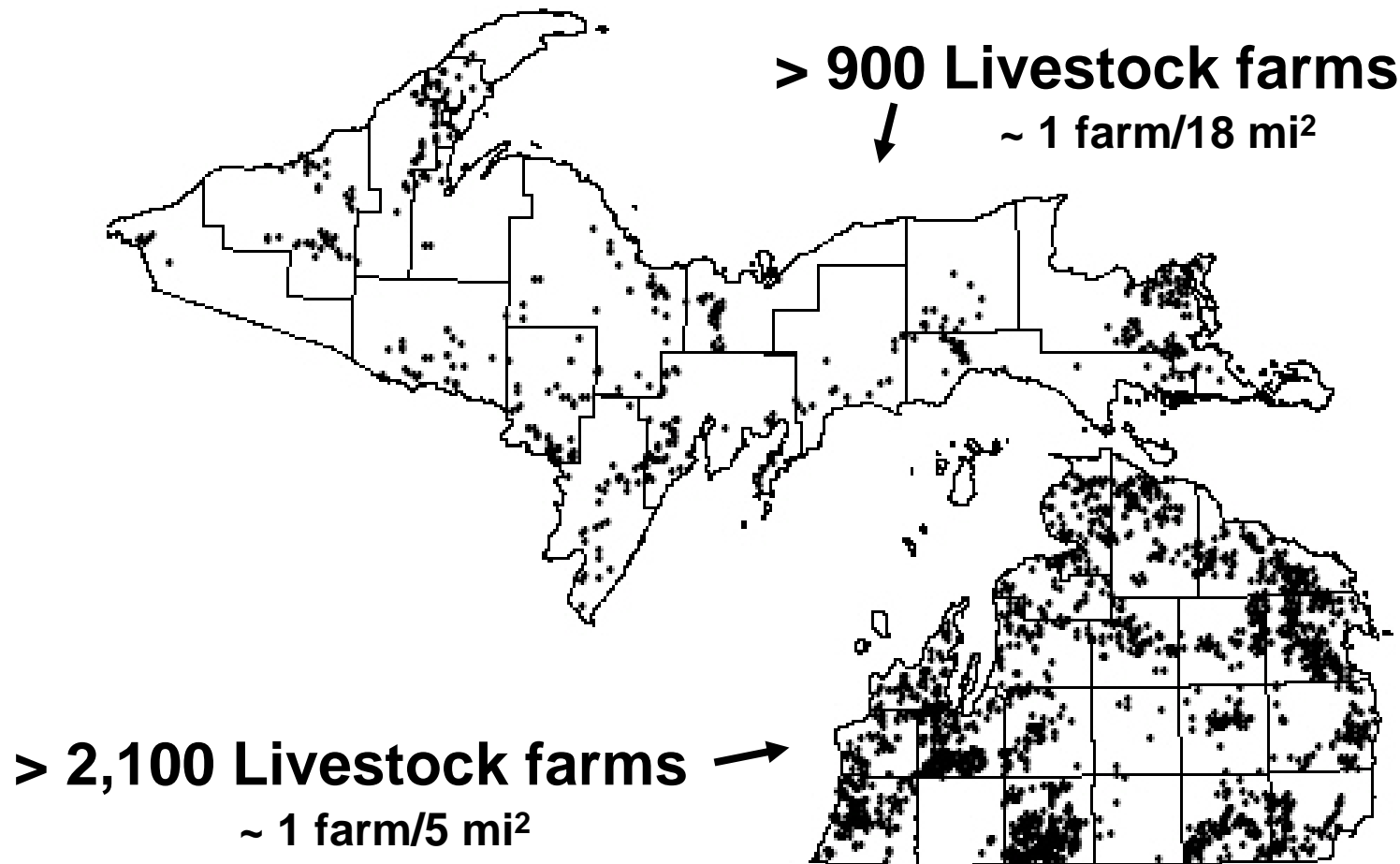
- Management options: passive to active
- Population control is complex
 - Non-lethal and lethal control measures
- Wolf populations are resilient
 - Re: control actions in Alaska & Canada
- Control affects more than abundance
- Public wolf harvests-hard to apply to MI
- 2/3 of interested respondents would support a limited hunt

Chapter 4: Wolves and Human Safety

- 80 wolf-human encounters from 1900-2002
 - 12 Rabid Wolves
 - 29 Habituated Wolves
 - 39 Healthy Wolves
- 2 Confirmed Deaths—Rabid Wolves
- Probability of Attack is Very Small
- Despite Low Risk the Public is Concerned
- Vast Majority Support Lethal Removal

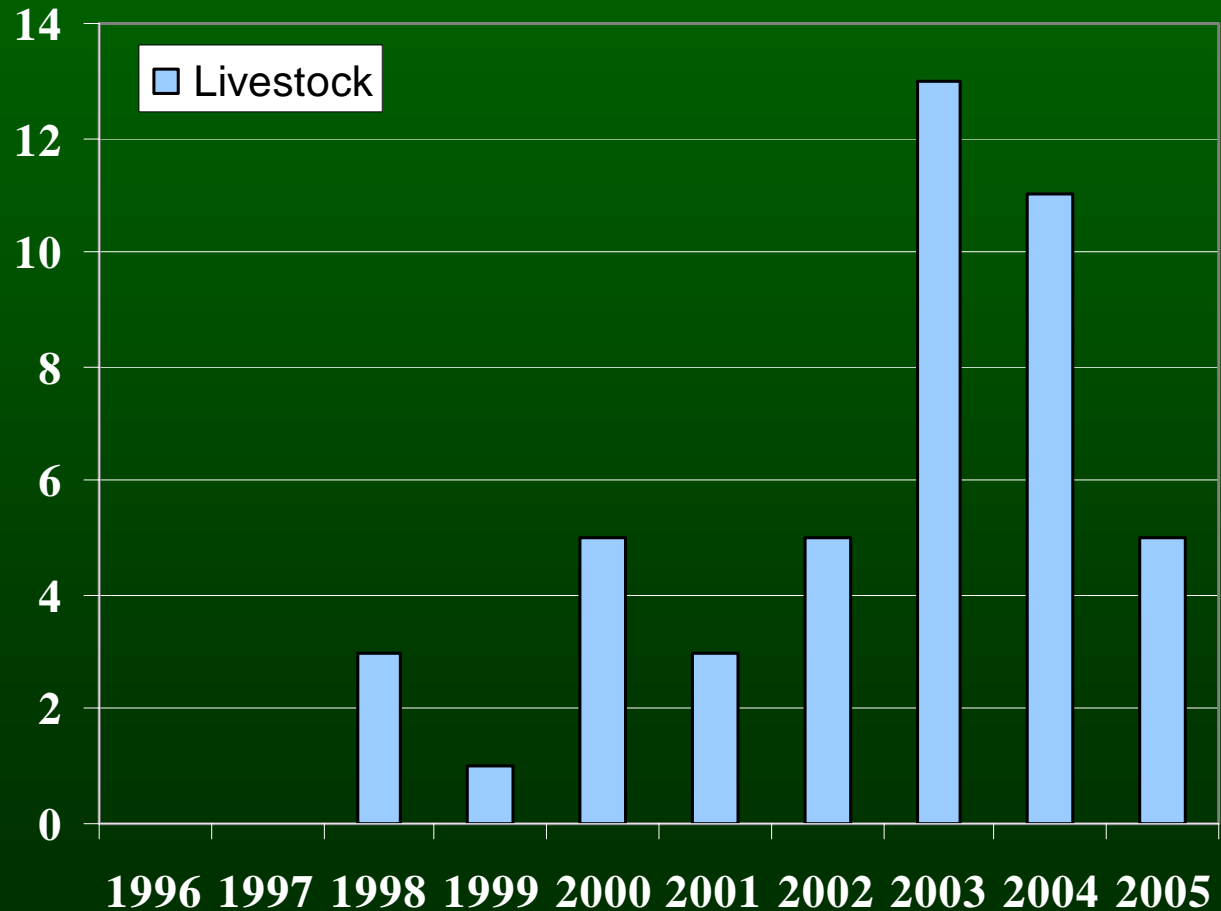


Chapter 5: Depredation



Wolf Depredation of Livestock

- 1998-2005: 46 Livestock depredation events



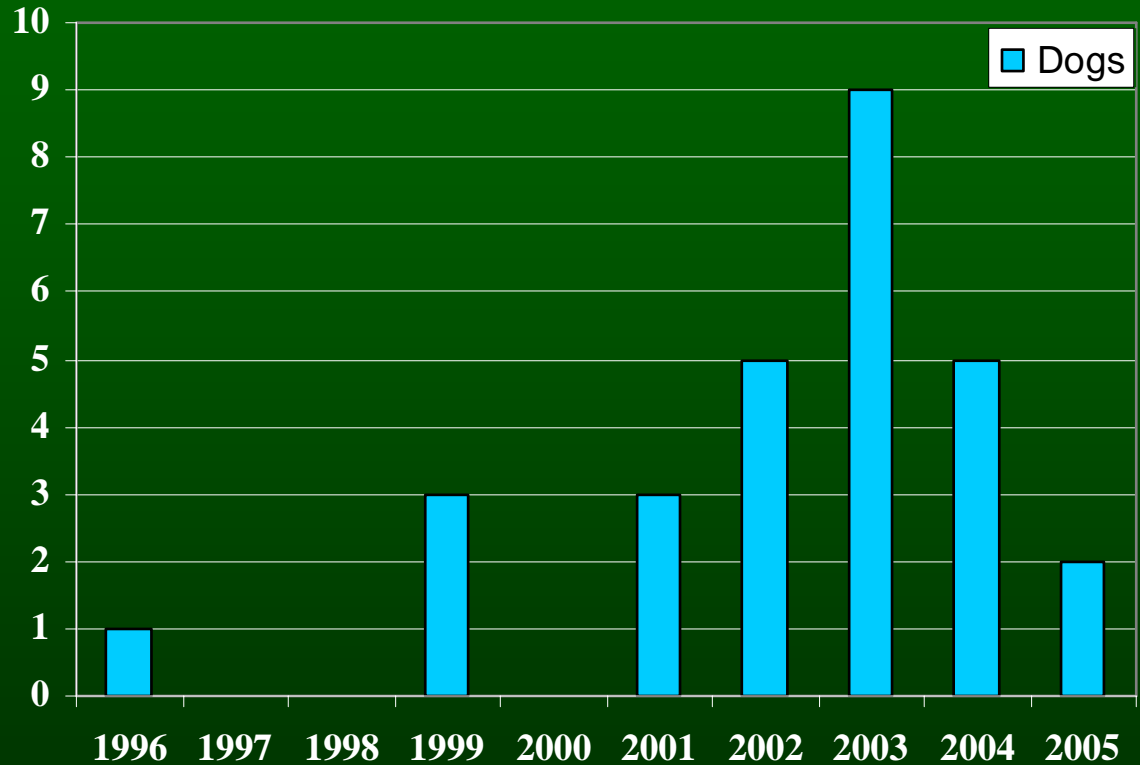
Indemnification

Year	MDA (\$)	IWC (\$)	Total (\$)
1998	612	NA	612
1999	400	NA	400
2000	850	NA	850
2001	1,450	750	2,200
2002	3,081	567	3,648
2003	4,370	350	4,720
2004	4,575	860	5,435
2005	1,510	380	1,890
Total	16,848	2,907	19,756



Wolf Depredation of Dogs

- 24 dogs killed; 7 injured
- 50% involved hounds
- No compensation
- Annual losses vary
- Management options focus on prevention



Chapter 5: Depredation

- 75% of Interested Respondents are Concerned About Depredations
- Most Growers Satisfied if:
 - Compensation is available
 - Empowered to control problem wolves
 - DNR program to control problem wolves
- Management does not always buy tolerance
 - 45% of growers would still be intolerant

Chapter 6: Wolf-Prey Relationships

- Predator-prey relationship is very complex
- Wolves sometimes limit prey—other times not
- Many factors to consider:
 - Prey species, number of prey species, relative densities of wolves and prey, response of wolves and prey to changing prey abundance, weather, disease, etc.
- Prey vulnerability

Wolf-Prey Relationships

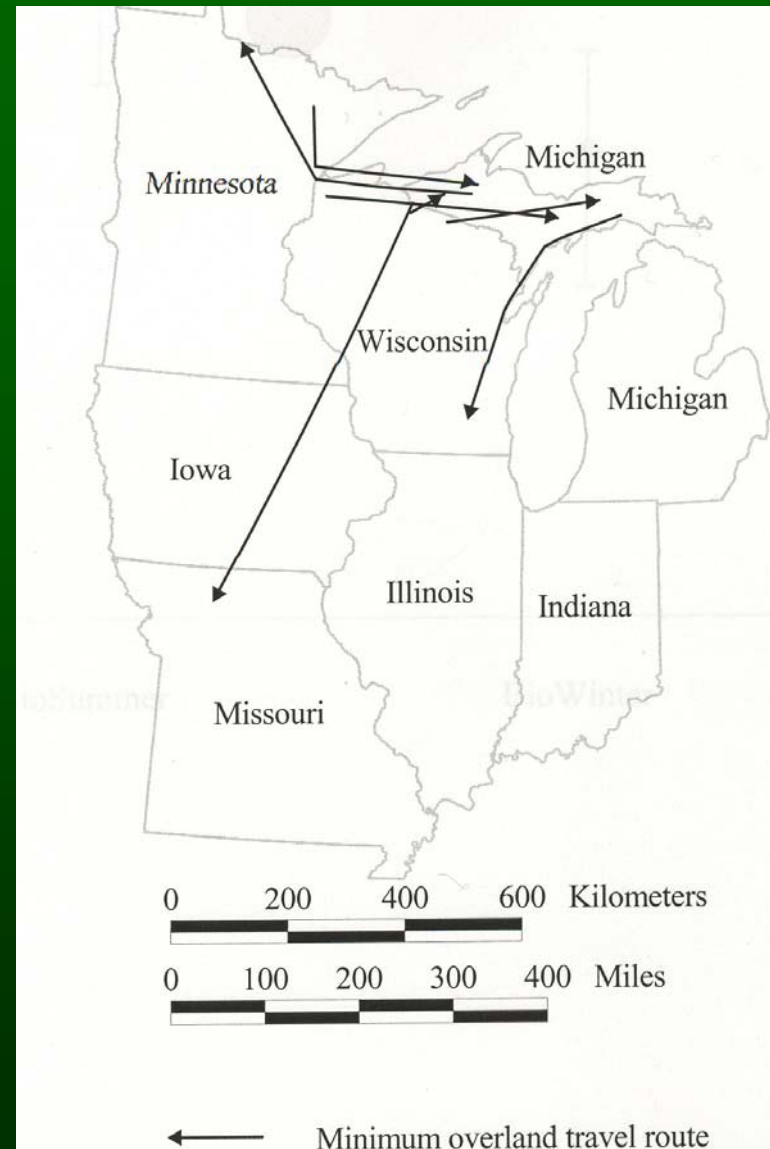
- Majority of hunters believe wolves mean poorer deer hunting
- 75% of hunters want wolves managed if deer numbers drop because of wolf predation
- 52% of statewide respondents want wolves managed if deer numbers drop because of wolf predation

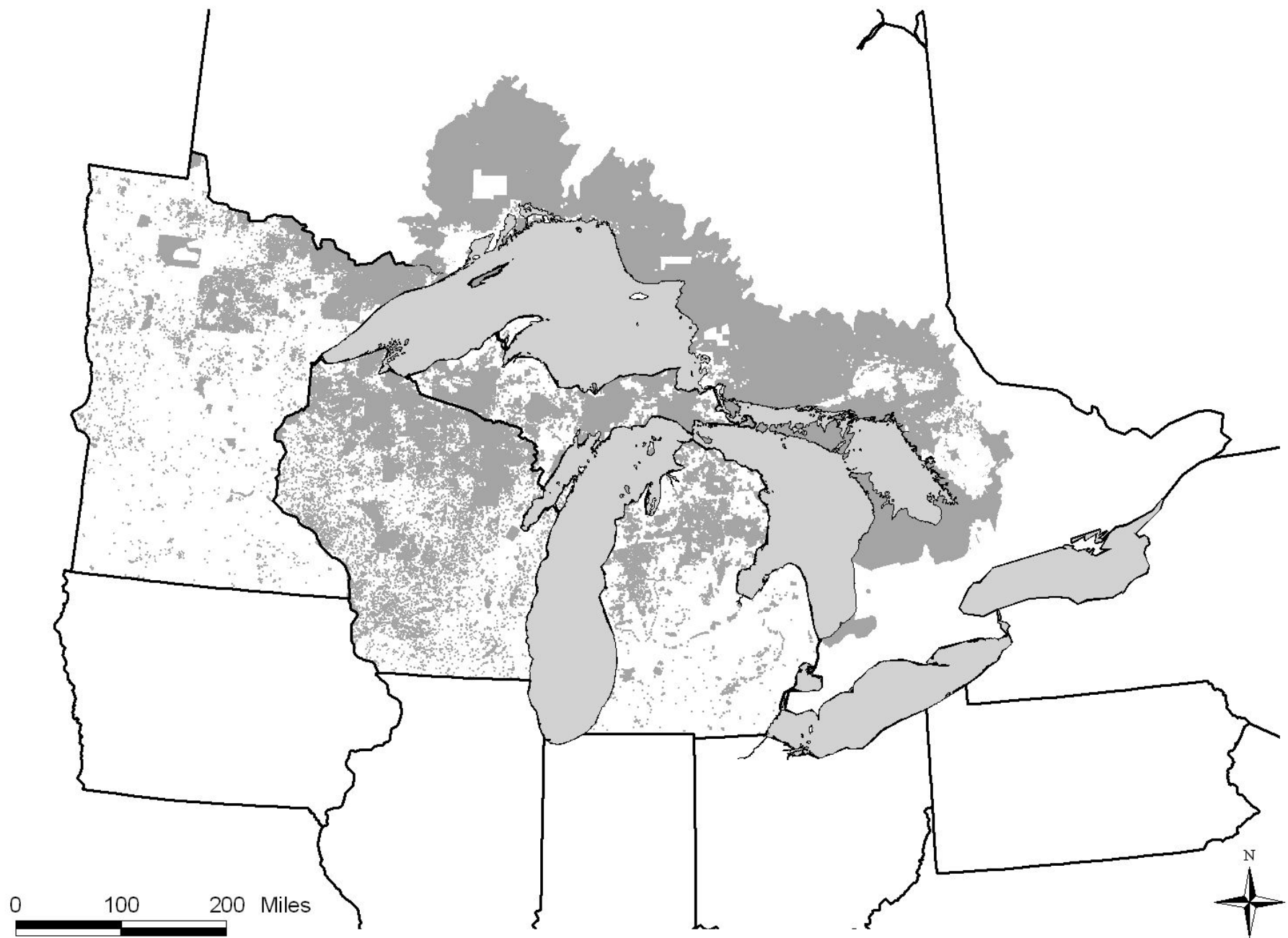
Chapter 7: Recreational Wolf Harvest

- Very controversial issue
- 50% of survey respondents did not think that wolves becoming a game species was an important reason to have wolves
- Yet, 50% supported a controlled hunt if the population could support it
- Hunters support; non-hunter evenly split
- More support for hunting in northern parts of state

Chapter 8: Habitat Linkages

- Great Lakes population
- Barriers to wolf movement





Chapter 9: Information and Education

- Everyone agrees—I&E is important
 - 70% of interested respondents believe education was effective
- Education expect to change attitudes & behaviors
- Knowledge is only one factor that influences attitudes and beliefs
- Predisposition to filter information
- Challenge in developing an effective I & E program

Chapter 10: Funding

- Issue raised at public meetings
- Sources of funding?????

Table 10.1. Funding sources for wolf research and management in Michigan.

Source	Type of Fund	Restricted?	Remarks
Section 6 Endangered Species	Federal, passed through to States in eight-state Region	Yes: for federally listed species only	Wolves have not been a priority for these funds for USFWS Region 3; limited availability; competitive among states
Non-Game Trust Fund	State, formerly from income tax check-off; now license plate sales	Yes: for non-game species and programs	Limited availability, especially since elimination of tax check-off; especially appropriate for education and outreach programs
Wildlife Restoration	Federal, Pittman-Robertson funds passed through to states	Yes: for birds or mammals	Traditionally used for game species only, yet not restricted to game species; available for some wolf-related work.
Game and Fish	State, derived from hunting and fishing license sales	Yes: for wildlife restoration and associated activities	Traditionally used broadly for game species and related programs; available for wolf-related work, including education and outreach
General Fund	State, derived from general tax revenues	Yes: for indemnification payments	Administered through Michigan Department of Agriculture
Wildlife Conservation and Restoration and State Wildlife Grants	Federal, passed through to states	Yes: for species in greatest need of conservation, which include wolves	Currently cannot be used for substantive education and outreach programs

Michigan Wolf Roundtable

